



December 11, 2016

Randy Fiorini, Chair
Members
Delta Stewardship Council

RE: Delta levees Prioritization Study

Dear Chair Fiorini and Members of the Delta Stewardship Council:

We write to you again regarding the Delta Levee Investment Strategy (DLIS). We are pleased that the Council has recognized that the study must reflect the “co-equal goals of providing a more reliable water supply for California and protecting, restoring, and enhancing the Delta ecosystem.” (CA Water Code §85054). These requirements are especially important with respect to expenditure of public funds on Delta levees. NHI continues to encourage the Council to have greater recognition of the importance of the Delta aquatic ecosystem and to recognize the important role the levee system plays in determining the quality and quantity of aquatic habitat. It is worth reminding you that construction of the Delta levee system destroyed 98% of the historic tidal marsh habitat that once existed in the Delta. You now have an opportunity to undo some of those past mistakes.

Unfortunately, the planning tool continues to evolve as predominantly a land-based tool and, as such, many risks and benefits associated with the water in the channels have either not been included or given proper weighting in the DLIS. The DLIS final rankings must score the potential for aquatic habitat enhancements at least equal to the land-based risks to ensure the consequences of state investment in Delta levees will not eliminate any opportunities for tidal marsh restoration both now and in the future. For the DSC staff and consultants to simply state that the ecosystem restoration plans are not well defined or that the proper studies have not been conducted is not a valid excuse for a failure to include or highly rate this factor. The aquatic system is key in ensuring a more reliable water supply for California and in protecting, restoring, and enhancing the native fish populations. Finally, without including a proper valuation and scoring of the aquatic system, the DLIS may not contribute to the council’s achievement of the coequal goals. We suggest several ways in which the co-equal goals can be met in the context of the prioritization effort.

1) Prioritization should evaluate whether allowing a flooded island to remain flooded would provide ecological benefits that might outweigh the benefits if the island were repaired. Some of the best Delta habitat has resulted from the flooding of islands like Little Holland Tract, Chipps and Liberty Islands. Likewise, the creation of additional flooded island benefits must be considered and scored highly in your prioritization process. Shallow-flooded islands in particular will provide a wide variety of additional habitat for terrestrial and aquatic species.

2) The increasing expense of protecting islands and restoring broken levees, in addition to the insufficient long-term economic justification and overall sustainability of certain levee systems must be weighed against the huge ecological benefits. We do not see the economic justification for

investing in Central and Western Delta islands that are not likely to persist. As your own DSC scientist, Dr. Jay Lund, wrote in his blog "...numerous island failures seem inevitable, especially in the central and western Delta. State policy should reflect this inevitability, and opportunity. Whether these islands fail with a bang or a whimper seems less important than the fact that more islands in the central and western Delta will fail." Funds for improving and repairing Delta levees are limited. Before these funds are expended, the Council should determine and conclusively state if the island on which the funds will be spent has a reasonable chance to survive sea level rise, seismic activity, on-going subsidence related artesian conditions and other increasing risks over the subsequent 30 years.

3) In developing priorities for expenditure of state funds to improve Delta levees, high priority should be given to projects that provide net ecological benefits for aquatic and terrestrial species. State law requires no net loss of habitat with these projects (Water Code Sections such as 12311, 12314, 12987, and 78543.) and Water Code section 12987 requires the Department to provide a net benefit for aquatic species in the Delta. Therefore, the expenditure of public funds and the Delta Protection Act require a higher standard. The Council and other state agencies should prioritize projects which enhance the populations of species which depend on Delta habitat for their survival and recovery. The Council's prioritization criteria should include a requirement of no net loss of aquatic and wetlands habitat.

The DSC is proposing a Delta levee investment strategy that narrowly focuses on improving the Delta's levee system and maintaining the current landforms/land uses as a means to reduce certain risks. This strategy only evaluates and prioritizes what is protected by improving a levee and not what is harmed or what opportunities are lost by making those improvements. We welcome the opportunity to work with you to improve the DLIS in a way that captures the concerns expressed here.

Finally, we urge the DSC to be realistic in the value of your investment strategy in Delta levees. Sea level is rising, and at an accelerated pace. A rise in sea level before the end of this century of two meters would not be unexpected, and three meters is possible. Investing in levees to protect deeply subsided islands without a plan to raise those islands to sea level as quickly as possible would be foolish indeed.

The science behind sea level rise projections is hardly obscure. The Wikipedia entry for sea level rise contains numerous scientific projections of two, three or even five meters of sea level rise by the end of this century. The DSC needs to take this science into account when planning for investment in Delta levees, and when preparing revisions of the Delta Plan with respect to the need for accommodation space for habitat at these higher levels of inundation.

Thank you for considering our views on these important matters.

Sincerely

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